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(71) Applicant (for all designated States except US): **NORTEL NETWORKS LIMITED** [CA/US]; 2351 Boulevard Alfred-nobel, St. Laurent, Québec H4S 2A9 (CA).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **IBRAHIM, Tarek** [EG/US]; 224 Hudson St. #4b, Hoboken, New Jersey 07030 (US). **BRANCATO, John** [US/—] (**). **BONGIORNO, John** [US/—] (**).

(74) Agents: **MCCUTCHEON, Robert, D.** et al.; Davis Munck, P.C., 900 Three Galleria Tower, 13155 Noel Road, Dallas, Texas 75240 (US).

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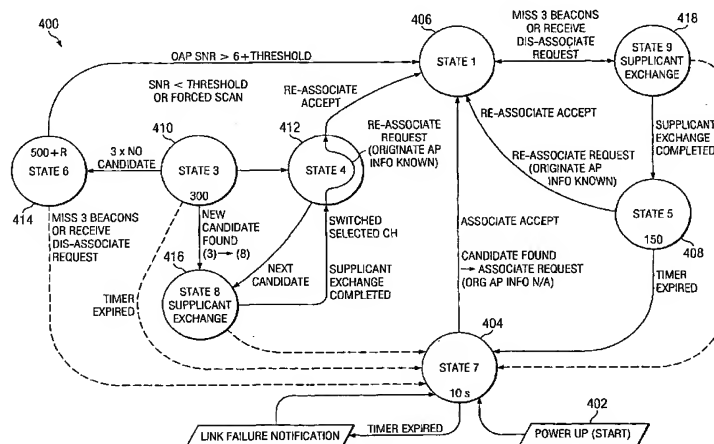
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
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(54) Title: PICO CELL WIRELESS LOCAL AREA NETWORK (WLAN)



(57) Abstract: A pico cell wireless LAN and pre-emptive roaming algorithm is provided to allow mobile devices in the WLAN to hand-off to another different access point quickly and efficiently. Once associated with an access point (AP), the mobile device receives information about neighboring APs that may be available for hand-off during roaming (or insufficient signal strength). Signal strength of the associated AP is continuously monitored and if signal strength from the associated AP falls below a threshold, the mobile device measures signal strength of the neighboring APs in the list, ranks them, and selects an AP for hand-off. AP load and other information may be used to rank the neighboring APs. The mobile device hands-off to (or associates with) one of the neighboring APs, if appropriate. Hand-offs are attempted in order or rank. Cell sizes in the pico cell WLAN are relatively small, on the order of 1000 square feet or less.

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